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CHRONIC PELVIC ABSCESS.

A CONTRIBUTION TO THE DIFFERENTIAL DIAGNOSIS
OF ABDOMINAL TUMORS.

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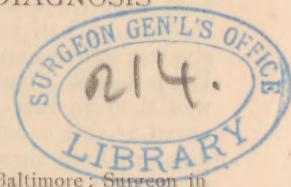
(Read at the Clinical Society of Maryland).

There is probably no branch of practical surgery which presents to the practitioner so many difficulties as the differential diagnosis of tumors in the abdominal and pelvic cavities. Although the literature of gynecological surgery can show a considerable number of individual cases bearing upon this subject, no definite rules can as yet be laid down for our guidance. In fact, in most of the cases reported mistakes had been made in the diagnosis, and they were made public by the writers with the object of warning others against similar errors. With a like view I desire to report the following cases, trusting that the importance of the subject, and the unsatisfactory manner in which it is treated by systematic writers, may be sufficient excuse for occupying your time with the details. I am convinced that a recollection of the *errors* made by ourselves or others will be of more value, when at any time we shall be confronted with a difficult case, than the remembrance of a dozen successes. Of course to appreciate the relative value of different factors in the

problem, and to arrive at its correct solution, other qualities than mere memory are needed; or, as Matthews Duncan puts it: "For a good diagnosis there are wanted common sense, a knowledge of and experience in disease, and a watchfulness against already known sources of error." Assuming the possession of the first two of these elements of success on your part I shall endeavor to increase the "known sources of error" by the following cases:

CASE 1.—April 20, 1876. Mrs. R. C.; white; American; aged 43 years. Menstruation began at 15 years, and has always remained regular. She was married in her 16th year, and had three children, the last one 16 years ago. She was a large, well-nourished woman, who had always led an active life up to the time of beginning of the illness for which she sought advice.

During a period of nearly four years she had complained of severe paroxysmal pains in the left pelvic region, lasting one or two days. These attacks were



frequently accompanied by nausea and vomiting. A vaginal examination made a year and ten months previous to the above date, revealed an irregular, hard nodular tumor in the left iliac region and somewhat posteriorly. There was no fever. In view of the symptoms and the results of the physical examination, a probable diagnosis of cancer was ventured. Dr. Alan P. Smith, who saw the case in consultation, also agreed as to the probability of the tumor being cancerous. As in consequence of this diagnosis there was no hope of complete relief, palliative treatment alone was ordered. A year and a half after the patient first came under treatment, and three and a half years after her illness, she was again examined in company with Dr. James R. Chadwick, of Boston, who was then in the city. The conditions noted at this examination were entirely different from those observed eighteen months before. The tumor, which formerly occupied the postero-lateral region of the pelvis had entirely disappeared, and a firm, round, movable tumor, about the size of an adult head, was found occupying the hypogastric region. The most prominent portion of the tumor was in the middle line and reached somewhat above the umbilicus. The tumor was regarded by Dr. Chadwick as a fibroid, and the change of position explained by supposing the fibroid when small to have been embedded in inflammatory exudation, on the absorption of which it became movable and changed its position as already indicated. During the interval since her former treatment the patient's health had very much improved, and she had gained in flesh and color. She still suffered from paroxysms of severe pain at intervals, and as the tumor, from its size, gave her considerable discomfort by pressure on surrounding organs, she begged that an operation might be performed to give her relief. With the advice and concurrence of Dr. Chadwick, the removal of the supposed fibroid by laparotomy was decided upon. The operation was done some two months later in the presence of a number of physicians of this city. Upon making an incision in the median line, the tumor was readily brought into view. There were no peri-

tonic adhesions. After the tumor was exposed, slight fluctuation could be made out. An explorative puncture was made with a hypodermic syringe, which yielded pure pus. A trocar was then introduced and a large quantity of pure pus drawn off. The cyst walls were thick and fibrous, and were adherent to the left side and floor of the pelvis and left side of the uterus. An India-rubber drainage tube was passed from the abdominal wound through the abdominal cavity, cyst and Douglas's cul-de sac, into the vagina. The wound was then closed, retaining one end of the drainage tube at its lower border. A constant stream of carbolised water was allowed to flow through the drainage tube slowly from a reservoir placed alongside of the bed and slightly above the level of the body. The patient died on the fifth day, of septicæmia.

On *post-mortem* examination it was found that the enlargement consisted of an abscess, which had evidently commenced in the left iliac region, extending between the folds of the left broad ligament and so forming a large cyst. The uterus was pushed forwards against the symphysis pubis and slightly to the right side. The cyst-walls consisted of peritoneum, condensed connective tissue and inflammatory exudation. The walls were not of uniform thickness, but appeared thinned in spots as if some of the layers of the cyst-wall had yielded at these points to the distending pressure from within.

The drainage tube failed in its intended functions entirely. It soon became surrounded by inflammatory exudation and adhesions between the intestines and peritoneum. The tube was thus completely isolated and the antiseptic fluid prevented from escaping into the peritoneal cavity. The flowing out of septic fluids from the abdominal cavity through the drainage tube was likewise prevented by these conditions.

This case teaches that fluctuation cannot always be made out, even when a large amount of fluid is present. It may be masked by the distention, the thickness of the cyst-wall, or an excessive deposit of fat in the abdominal walls. In considering the case in all its bearings I was compelled to acknowledge an

error of omission in not making an exploratory puncture before resorting to laparotomy. I have since then determined never to pronounce an abdominal tumor solid until after aspiration.

CASE 2.—May 5, 1877. E. B., single; aged 25; white; American; seamstress. Menstruation commenced at the age of 17 and was regular and painless up to sixteen months ago. Since then it had become irregular and painful. Has had considerable leucorrhœa. Appetite and digestion are good. No pain on locomotion, micturition or defecation. The case was seen in consultation with the late Prof. T. R. Brown, who had diagnosed a solid uterine fibroid. The uterus could not be isolated from the tumor which extended nearly to the umbilicus and conveyed the impression of a large interstitial fibroid. There were some of the constitutional symptoms indicating suppuration, but no fluctuation could be detected in any part of the growth. The patient was unmarried, had never been pregnant, and had undergone no operation upon the uterus. There was consequently no reason to suspect pelvic cellulitis or abscess. In accordance, however, with the determination before expressed, never to pronounce positively on the nature of any abdominal tumor without an exploratory puncture, an aspirator needle was introduced, and to the surprise of Dr. Brown and myself, upwards of a pint of pure pus was withdrawn. The patient then passed out of my hands, but opportunity was given a year later for another examination which showed that the tumor was no longer round and hard. It had become soft, much larger, and fluctuation was very distinct. There was evidently a cavity containing fluid distinct from the abdominal cavity. I have since been informed that the patient had entirely recovered.

CASE 3.—March 4, 1880. Mrs. E., aged 33 years; married; born in Germany and leading an active life. Menstruation began in her eighteenth year, recurring every three weeks and generally profuse in quantity. Digestion moderately good and action of bowels regular. Has been married since her 21st year, has had five children, and no abortions. Her last pregnancy terminated four months ago. She was sent to

me by a professional friend who had made a probable diagnosis of ovarian tumor.

The patient's appearance was emaciated and anemic. Her tongue was coated and appetite somewhat impaired, but there was no fever. The lower part of the abdomen was occupied by an enlargement in the middle line which presented all the indications of a cyst. *Per vaginam* the tumor could be made out as an elastic swelling in the roof of the vagina and behind the uterus which was pushed forward. No induration could be detected by the vaginal examination, although it was carefully searched for; the rapid growth of the tumor and its appearance after parturition having raised a suspicion of pelvic abscess. The absence of fever, however, and the fact that all induration was wanting in the vaginal roof for so short a period after confinement seemed to exclude pelvic cellulitis and abscess. The diagnosis of ovarian cyst was therefore provisionally endorsed and the patient made preparations to enter the *Maryland Woman's Hospital* for operation. Preparatory to this a tonic of iron, quinine and strychnia, was ordered, together with a mercurial purge. Two weeks later she entered the hospital, but with a marked change in symptoms. The purgative had produced a decided diarrhoea, the discharge being profuse and very offensive. She was now also markedly hectic, the fever being high and regular in its evening exacerbations. The tumor was reduced to one-half its former size, and its upper portion was resonant under percussion. It was believed that the cyst had ruptured into the intestine and that its contents had been partly discharged and the remainder undergone suppuration and decomposition. It was decided to aspirate the tumor at once in order to remove its remaining contents which were evidently the cause of the fever. A quantity of exceedingly offensive pus and gas was drawn off, after which the symptoms somewhat improved. In a few days the cyst again filled. With the aspirator the cavity was again emptied of very fetid pus, and then washed out some twelve or fifteen times with carbonised water until all fetor had disappeared. The water was injected in

sufficient quantities to fully distend the cavity each time, in order to remove all the pus it might contain. Five days later the cavity again filled, with a recurrence of the fever and symptoms of the typhoid condition. No adhesions could be made out between the cyst and the anterior abdominal wall. It had become evident that the tumor was a pelvic abscess, and that constant drainage of the cavity was necessary in order to obtain a cure. A larger aspirator-trocár was now introduced and the canula allowed to remain after the pus had been evacuated. The cavity was distended once a day by carbolised water which flowed through the canula from a rubber tube leading to a reservoir above the bed. In the intervals constant drainage was kept up by a syphon arrangement which prevented the entrance of air into the cyst. At the end of five days the cavity was completely obliterated. No more fluid could be injected, and nothing drained away through the tube. The canula was then removed, and the puncture dressed with carbolised oil. In a short time the patient had completely recovered, and she is now again pregnant.

In order to show that I am not alone, but in very good company in making the diagnostic errors in the cases here reported, I shall give abstracts of a few cases presenting similar difficulties, which have occurred to some of the most eminent surgeons and gynecologists. In these cases abdominal tumors, which were afterwards shown to be pelvic abscesses, have been mistaken for pregnancy, fibroid tumors of the uterus and ovarian cysts. To mistake any abdominal growth for normal pregnancy, especially if the patient can be kept some time under observation, seems to me only an evidence of carelessness on the part of the observer, and I have no doubt that with an increase in our knowledge of the clinical history and relations of abdominal and pelvic new-formations, whether solid or cystic, the differentiation between them will become in time easy and certain.

D. Warren Brickell reports the following case (*Am. Journ. Med. Sci.*, April, 1877, p. 363): In September 1873, was called to see a woman and give an opinion as to the existence of

pregnancy. The history was as follows: "In the previous spring she had gotten quite wet on the street during the existence of the catamenia, and was, within a few hours, the subject of arrest of the function, accompanied with pain and fever. She treated herself several days, but growing worse called in a physician. He treated her during a month or more for malarial fever, and when she called attention to a tumor in the pelvis, he pronounced her pregnant. As soon as she was able to travel he ordered her to the Virginia Springs. At the springs she remained for a month, and although she improved in general health, the tumor grew steadily. On reaching New York she sought the advice of a mid-wife, who told her she was pregnant; then she called in a physician of standing, who corroborated the opinion. External examination revealed a perfectly central tumor, somewhat pear-shaped, with the larger end upwards, and fully the size of a five month's pregnant womb. It was rather tender to the touch and lacked the elasticity of the pregnant womb. Auscultation revealed no heart-sounds or placental *souffle*. The touch, *per vaginam*, revealed the small unimpregnated uterus high up, and pushed over to the left. The sound, applied through the speculum, proved the depth of the organ to be normal, and in all respects it seemed to be in a healthy condition. The tumor was readily felt in every direction *per vaginam*. It could be caught readily between the external and internal hands, and there was a good deal of mobility."

Dr. Brickell states that he promptly told the patient he had no doubt the supposed pregnant womb was simply a collection of pus. As the patient was obliged to leave immediately for New Orleans, she was advised to consult the late Dr. Choppin on her arrival. After some time she sent for him to attend her in what she still believed her approaching confinement. After an examination Dr. Choppin told her that she was not pregnant but that he was inclined to suspect fibroid. Some time afterwards the tumor burst into the rectum discharging large quantities of pus; later discharge of pus also took place through the bladder.

In this case two physicians and a mid-wife had diagnosed pregnancy, one suspected fibroid, and the reporter the true condition.

Emmet gives the details of a case* in which a fibroid tumor of the posterior wall of the uterus was diagnosed by two skilled physicians of New York. Dr. Emmet found a cystocele, presenting at the labia, and due to the crowding forward of the enlarged uterus. What seemed to be a large nodulated fibroid tumor was found on its posterior wall. On elevating the cervix on the point of the fingers and tilting the fundus forward against the pubis, the tumor was made evident to several gentlemen present at the examination. The facility with which the size and relation of the tumor to the uterus could be accurately mapped out through the abdominal wall was shown by Dr. Emmet.

Three weeks after the patient entered the hospital she was operated for the cystocele. The operation was successful, the sutured lines being perfect except about half an inch near the neck of the bladder where a few sutures had torn out. Seven weeks later the small opening left was closed by four sutures. Two days afterward the patient had an exceedingly offensive movement of the bowels. "Shortly afterwards," continues Dr. Emmett, "the expression of the patient's face indicated that some trouble was brewing, but there was no special symptom to indicate what it was. The pulse was 95 per minute, the skin and tongue in a normal condition, and the abdomen free from tenderness on pressure."

No change took place until five o'clock the following afternoon, when suddenly she had two copious fetid evacuations per rectum. The pulse rose rapidly to 170, the tongue became dry, the body covered with a clammy sweat, and she sank into a profound collapse." She died the following evening.

The post-mortem examination proved the supposed fibrous tumor to have been a large abscess, with several smaller ones communicating with it, between the peritoneum and uterus, which had ruptured

tured into the rectum. The abscesses were encysted within a common sac and free from adhesions above, except at one point, to a portion of the small intestines. The other adhesions extended along the bottom of the cul-de-sac, from the uterus to the rectum. Some thickening of the left broad ligament was found.

Dr. Emmet, in commenting on the case, says,* "I fear that I would be liable to fall into error in any similar case not presenting a previous history more to the point, and where the patient was in good health, the uterus being somewhat enlarged and menstruation more profuse than natural. The absence of fluctuation was due to the density of the cyst, while the mobility of the uterus, the mass in connection with it, and its nodulated surface added greatly to the perplexity." Dr. Emmet concluded, after an examination of the specimen, that the abscess was primary, and not the result of the breaking down of the fibroid tumor.

Rheinstädter, of Cologne, reports a case (*Archiv f. Gynaekologie*, Bd. 14, p. 501) in which an encapsulated perimetritic abscess, lasting for several years, had been mistaken for ovarian tumor by several competent gynecologists. The tumor was globular, originating in the pelvic cavity and reaching to the umbilicus. The uterus could not be isolated; the sound entered in the normal direction to the usual depth. The clinical history was that of recurrent perimetritis. Very little pain on palpation, except at one point in the left groin where the abscess pointed. Incision and drainage; spontaneous opening of abscess into the vagina. On the following day an attempt was made to connect the two openings for the purpose of thorough drainage, but this was found impossible. Three months subsequently, patient is entirely well; tumor entirely disappeared.

Dr. Alfred C. Post (*N. Y. Med. Gazette*, Nov. 27, 1881, p. 672) reported the following case during a discussion on obscure pelvic tumors before the New York Academy of Medicine: A woman, aged 60, was admitted to the Presbyterian Hospital with a large abdominal tumor, which, on examination, was found to be half firm, very hard and globular,

* Principles and Practice of Gynecology, 2nd edition, p. 275.

* Ib. p. 277.

while the other half fluctuated. The conclusion was arrived at that it was a fibro-cystic tumor. It was aspirated, and about seven pints of fluid containing pus was evacuated. It is very probable that this was likewise a case of pelvic abscess.

Schlesinger, quoted by Bandl (*Handbuch der Frauenkrankheiten, Red. von Billroth, V Abschn., p. 133*) relates the case of a woman aged 37, who died in one of the Vienna hospitals of cancer of the uterus. Her symptoms had begun nine months previously. The patient was emaciated and anemic. Her abdomen was distended on the right side by a tense tumor, extending from the symphysis pubis to the arch of the ribs. On palpation the tumor seemed to be composed of large lobules; it was painful and immovable and dull on percussion. The right leg was strongly flexed at the knee and painful on extension. There were also pains in the abdomen and iliac region. No further clinical data are given in the report.

At the *post mortem* examination the tumor was found to consist of a subperi-

toneal abscess of the size of an adult head. It seems probable, from the meagre clinical details given, that either no diagnosis of the enlargement was made, or that it was not borne out by the autopsy.

In view of these difficulties in diagnosis, which have been acknowledged by the best men in the profession as liable to occur to them, I think it advisable to use the aspirator in all cases of doubtful abdominal tumor before pronouncing definitely upon its nature. This would have prevented most of the mistakes made in the preceding cases.

In all cases of pelvic abscess, the cavity, after evacuation of the pus, should be kept constantly drained by a syphon drain, and daily washed out with an antiseptic solution. By means of the syphon drain the entrance of air is prevented from without, and hence decomposition of the pus and septicæmia cannot take place. Obliteration of the cavity is also secured more rapidly in consequence of the constant and complete evacuation of its contents.



